

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (currently amended) In an integrated circuit, a power management architecture comprising:

an integrated circuit power rail to supply power to a plurality of sections of said integrated circuit;

a plurality of voltage meters for measuring a plurality of voltage levels supplied respectively to each of said plurality of sections of said integrated circuit;

an a plurality of integrated voltage regulators to augment power supplied supply power to said integrated circuit power rail, said augmented power compensating for power fluctuations between said plurality of sections of said integrated circuit; and

a power manager management state machine to receive said measured plurality of voltage levels from each of said plurality of sections of said integrated circuit and to control said augmented power an output voltage of said integrated voltage regulator.

2. (currently amended) In an integrated circuit, a power management architecture according to claim 1, wherein further comprising:

[[a]] said plurality of integrated voltage regulators are including said first integrated voltage regulator, each of said plurality of integrated voltage regulators being associated with a different one of said plurality of sections;

wherein an output voltage of each of said plurality of integrated voltage regulators is controlled based on a voltage level measured at a respective one of said plurality of sections.

3. (canceled)

4. (currently amended) In an integrated circuit, a power management architecture according to claim 3 1, wherein:

 said at least one of said plurality of sections at which said voltage level is measured is a section farthest electrically on said integrated circuit power rail from any of said plurality of integrated voltage regulators.

5. (currently amended) In an integrated circuit, a power management architecture comprising:

 a plurality of integrated circuit power rails to supply power to a respective plurality of sections of said integrated circuit;

 a plurality of voltage meters for measuring a plurality of voltage levels supplied respectively to each of said plurality of sections of said integrated circuit;

 an a plurality of integrated voltage regulators to augment power supplied to supply power to a respective one of said plurality of integrated circuit power rails, said augmented power compensating for power fluctuations between said plurality of sections of said integrated circuit, and

 a power manager management state machine to receive said measured plurality of voltage levels from each of said plurality of sections of said integrated circuit and to control said augmented power an output voltage of said integrated voltage regulator.

6. (previously presented) In an integrated circuit, a power management architecture according to claim 5, further comprising:

a processor to receive an output from said plurality of voltage meters and to control said plurality of integrated voltage regulators.

7. (currently amended) A method of providing secondary internal voltage regulation in an integrated circuit including internal voltage regulation, said method comprising:

providing at least one integrated circuit power rail to supply power to a plurality of sections of said integrated circuit;

measuring a plurality of levels of voltage supplied to respective ones of said plurality of sections of said integrated circuit;

augmenting regulating a voltage level of power supplied to said at least one integrated circuit power rail, said augmented power compensating for power fluctuations between based on a plurality of voltage levels measured at respective ones of said plurality of sections of said integrated circuit; and

receiving said measured plurality of voltage levels from each of said plurality of sections of said integrated circuit at a power manager management state machine to control said augmented power an output voltage of said integrated voltage regulator.

8. (previously presented) The method of providing a secondary internal voltage regulation in an integrated circuit including internal voltage regulation according to claim 7, wherein:

at least three separate integrated circuit power rails are provided to supply power to said plurality of sections of said integrated circuit.

9. (previously presented) The method of providing a secondary internal voltage regulation in an integrated circuit including internal voltage regulation according to claim 8, further comprising:

measuring a plurality of levels of voltage supplied to respective ones of said at least three separate integrated circuit power rails.

10. (currently amended) A method of providing secondary internal voltage regulation in an integrated circuit including internal voltage regulation, said method comprising:

providing at least one plurality of integrated circuit power rail[[s]] to supply power to a respective plurality of sections of said integrated circuit;

measuring a plurality of levels of voltage supplied to respective ones of said plurality of sections of said integrated circuit;

augmenting regulating a voltage supplied to said at least one integrated circuit rail ~~output from a plurality of integrated voltage regulators, said augmented voltage compensating for voltage fluctuations between each of said plurality of integrated voltage regulators adapted to supply power to a respective one of said plurality of sections of said integrated circuit integrated circuit power rails;~~ and

~~receiving said measured plurality of voltage levels from each of said plurality of sections of said integrated circuit at a power manager management state machine to control said augmented voltage an output voltage of said integrated voltage regulator.~~

11. (previously presented) The method of providing secondary internal voltage regulation in an integrated circuit including internal voltage regulation according to claim 10, wherein:

at least three integrated circuit power rails are provided to supply power to said respective plurality of sections of said integrated circuit.

12. (currently amended) Apparatus for providing secondary internal voltage regulation in an integrated circuit including internal voltage regulation, said apparatus comprising:

means for providing at least one plurality of integrated circuit power rail[[s]] to supply power to a respective plurality of sections of said integrated circuit;

means for measuring a plurality of levels of voltage supplied to respective ones of said plurality of sections of said integrated circuit; and

means for augmenting regulating a voltage supplied to said at least one integrated circuit rail output from a plurality of integrated voltage regulators, said augmented voltage compensating for voltage fluctuations between each of said plurality of integrated voltage regulators adapted to supply power to a respective one of said plurality of sections of said integrated circuit integrated circuit power rails; and

means for receiving said measured plurality of voltage levels from each of said plurality of sections of said integrated circuit at a power manager management state machine to control said augmented voltage an output voltage of said integrated voltage regulator.